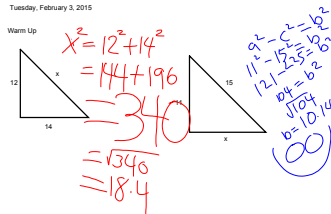
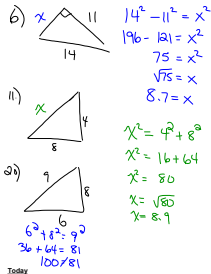


Tuesday, February 3, 2015

Warm Up



Take up the worksheet



Today

be able to:

- label opposite, adjacent, hypotenuse
- determine which trig ratio to use: sin, cos or tan
- solve for a side length when given an angle
- solve for an angle given 2 side lengths

Check in: Can you use your calculator?

DEG D DRG

$$\sin 50^\circ = 0.76$$

$$\cos 60^\circ = 0.5$$

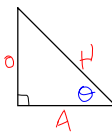
$$\tan 80^\circ = 5.67$$

$$\sin \theta = 0.65$$

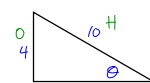
$$\theta = \sin^{-1}(0.65)$$

$$= 40.6^\circ$$

Label O, A, H



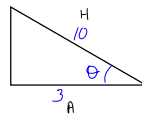
What Ratio??



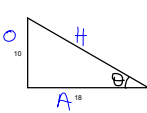
SOH CAH TOA

SIN

SOH (CAH) TOA



Let's Solve some problems



SOH CAH TOA

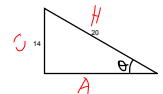
$$\tan \theta = \frac{O}{A}$$

$$\tan \theta = \frac{10}{18}$$

$$\tan \theta = 0.56$$

$$\theta = \tan^{-1}(0.56)$$

$$= 29^\circ$$

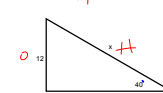


$$\sin \theta = \frac{O}{H}$$

$$\sin \theta = \frac{14}{20}$$

$$\theta = \sin^{-1}(0.7)$$

$$\theta = 44.427^\circ$$



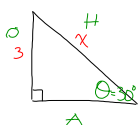
(SOH) CAH TOA

$$\sin 40^\circ = \frac{12}{x}$$

$$x = \frac{12}{\sin 40^\circ}$$

$$= 18.7$$

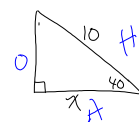
Try These



$$\sin 30^\circ = \frac{3}{x}$$

$$x = \frac{3}{\sin 30^\circ}$$

$$x = 6$$



$$\cos 40^\circ = \frac{x}{10}$$

$$10 \cos 40^\circ = x$$

$$7.66 \approx x$$